

Training Opportunities

FOR

PUBLIC HEALTH PERSONNEL

From a 10-State survey it has been estimated that some 17,000 professional positions in State and local health departments throughout the country call for graduate or specialized public health preparation, and that almost 9,000 persons in these positions have not had such training. Thus, more than half of our Nation's public health workers have not had the training that provides a sound and balanced knowledge of the multidisciplinary technical aspects of health problems and of the relationship of health problems to the socioeconomic fabric of the community.

DURING the past decade new research discoveries and developments in the health sciences have immeasurably enhanced the potential benefits of public health protection. Many health authorities have been quick to accept and to plan for the broader concepts in public health which have evolved from these developments. But they have been faced within the same period with an acute and worsening shortage of trained health personnel in all categories. In many States and communities, as well as in Federal agencies, plans and hopes remain unfulfilled because the kind and

number of personnel needed to translate ideas into action have simply not been available. The problem has been with us for a long time, but it has become more pointed with each forward step in public health techniques and practices.

The need for more and better qualified personnel has been further intensified by the growth in the population to be served by public health programs. Since 1951 there has been a 10 percent increase in our national population. During these same years, the number of full-time personnel in State and local health departments has increased only 6 percent.

Indeed, we actually have fewer physicians and engineers in public health today than we had in 1951, with 15 million more persons to be served. According to recognized standards, we have less than half the physicians and nurses needed to extend basic minimum health services to the entire country—and not quite two-thirds the number of sanitation personnel that would be required. Besides this basic personnel, the newer health programs require a

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steadily increasing corps of workers representing a wide variety of professional categories. In addition, there are many demands for health personnel for foreign assignments, the armed forces, industry, research, and other official and nonofficial organizations.

Obviously, under these conditions our public health services cannot keep pace. Personnel shortages delay the initiation of needed studies and services concerned with chronic illness and aging, air and water pollution, radiological health, accident prevention, rehabilitation, and other issues brought into focus by our changing economy and population mobility. Further, the shortages hinder the improvement of current programs and prevent the strengthening of local health organization.

The lag is the more unfortunate because of the challenge presented by the forces of today. We see evidence of national vitality in the changing social and socioeconomic structure of the Nation; in the continuing population growth; in the longer life span achieved; in new and expanding industries and job opportunities; in the growth of urban and suburban areas, with ensuing metropolitan complexes. Much of this vitality can be ascribed to the success of the older, traditional public health function of controlling the common communicable diseases—the great killers of their day and dominant obstacles to the social and economic development of this and other countries. Now, in turn, the modern forces are reshaping public health philosophy and practice. The many advances in preventive and curative medicine have also contributed mightily to this reshaping. All these factors have added to the potentials as well as to the complexity of health protection, so that postgraduate training and residencies in public health practice have become as essential to this medical specialty as to the clinical specialties. In point of view, public health has advanced with the times, but its supply of trained workers has not.

Special Training Required

To say that there is a steadily growing need for more public health workers is not enough. Modern public health programs require well-trained personnel. An effective public health

worker must have, in addition to sound competence in his profession (medicine, nursing, engineering), an understanding of how to apply his basic discipline to community health problems. He must know how to take full advantage of available resources, how to make maximum use of recently developed scientific knowledge in the prevention and control of disease.

Each member of a health department staff must be keenly aware of the importance of good relationships among the several professions which make up the public health team. He must fit his own skills and knowledge smoothly into a complex organization.

Even the most dedicated and basically well-prepared employee learns these things more readily by special training than solely by instinct and on-the-job experience. Training alone does not make a superior health worker. Nevertheless, in general, the competence of the individual who already possesses other qualities essential to success in his field will be increased with advanced public health training.

One of the most critical areas of need is for trained public health physicians. The total number of physicians employed by State and local health departments has actually decreased since 1950. Last year, in health officer positions alone there were 436 vacancies. The application of specialist techniques in public health, requiring a wide variety of professional and ancillary personnel, makes all the more necessary the well-trained medical generalist who can see the public health program as a whole and maintain a balance in its direction. To fill these administrative positions adequately, physicians need formal public health training.

Such training is also highly important for other professional members of the modern public health team. A nurse's basic training is focused on bedside care of the sick. In public health, her primary purpose is preventing disease and disability. In order to do this effectively, she must learn to redirect her fundamental knowledge. The sanitary engineer, too, must learn the public health application of his skills in meeting community sanitation problems and in controlling environmental health hazards.

In addition to physicians, nurses, and sanitary engineers well-grounded in public health, present-day programs require the services of dentists and dental hygienists, health educators and nutritionists, laboratory technicians and veterinarians, statisticians and medical social workers, and a growing array of other groups with professional training supplemented by orientation to the public health aspects of their special fields.

Despite the seriousness of the situation with regard to trained personnel, efforts to improve it dwindled over a number of years. From a high point in 1947, when more than 900 persons in State and local health departments were given more than 4 months' training during the year, the annual number steadily declined to a low of 373 in 1956. Further, during that year 35 States had no physicians in training; 34 States had no engineers or sanitarians in training; and 17 States had no nurses in training—although shortages were, and are, most severe in those categories.

In recent years short-term nonaccredited courses sponsored by State and local health departments have, in large measure, replaced accredited postgraduate training in public health. For example, a number of States have established field training programs, designed to meet immediate needs of personnel in specific professional and subprofessional groups. These courses offer much of value, particularly in sanitation, laboratory, and related areas. A considerable amount of necessary training and vocational experience can also be supplied through orientation classes, inservice training, refresher courses, institutes, and workshops dealing with general areas of public health and with particular health problems. However, this brief, informal instruction, though important, is in no way a substitute for postgraduate education. It does not replace the broad indoctrination in public health provided by academic courses of study.

Training Funds

The financing of training, particularly accredited professional training, must, of course, compete in health department budgeting with the financing of the whole range of health pro-

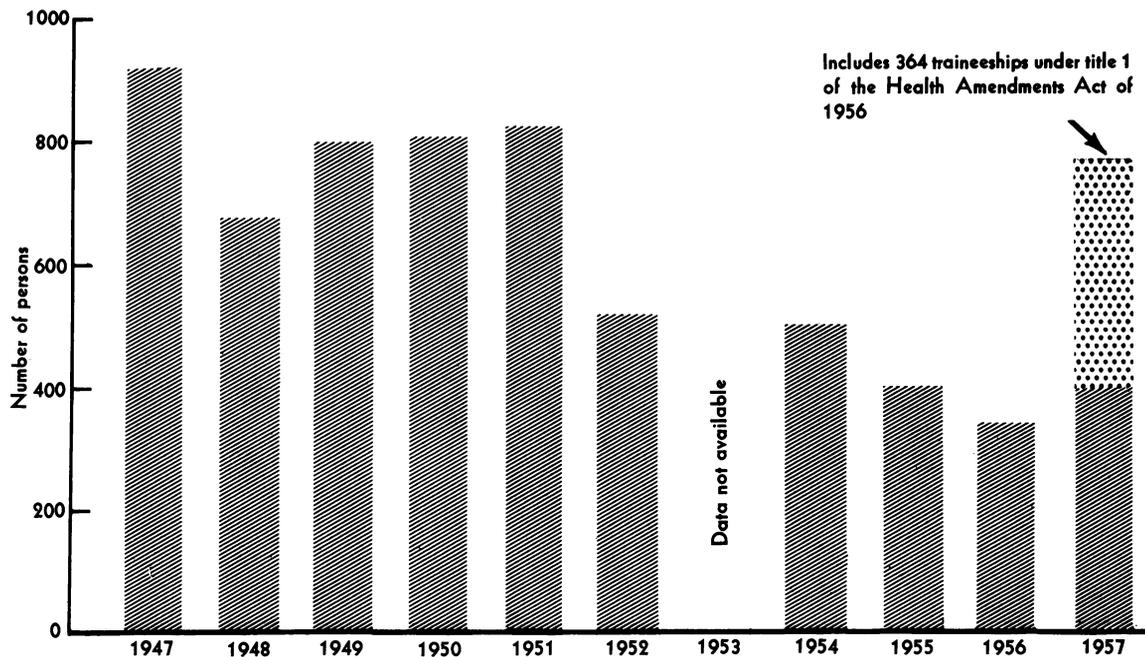
grams and services for which, it is safe to say, no health department has completely adequate resources. In planning the expenditure of available funds, however, setting aside a portion to provide formal public health training for staff members, present and future, is wise budgeting, even if it means resisting for the moment pressure for desirable current activities. Funds expended for training are an investment in the future.

There is evidence that many State health departments are fully aware of the wisdom of such an investment, that they are willing to assume their part of the joint Federal-State responsibility for improving the competence of personnel—when funds can be so used without sacrificing basic operations. However, since 1950, Public Health Service grants to States for preventive health services have shown a downward trend, from almost \$45,000,000 in 1950 to not quite \$22,500,000 in 1956. Because about 75 percent of their training activities had been supported over the years by Federal grant funds, State and local health departments were too hard pressed in many instances to consider more than minimal training courses for their employees.

Then for fiscal year 1957 the health grant total increased about 30 percent over 1956, to slightly more than \$29,000,000. Along with this brighter financial picture, fiscal year 1957 also shows, for the first time since 1951, a reversal of the downward trend in number of persons receiving advanced training under State and local sponsorship (see chart). The gain between 1956 and 1957 amounts to 8 percent (401 persons as against 373) and is reflected among 9 of the 15 occupational categories represented.

There are other hopeful signs, such as the increased enrollment in schools of public health—from 570 graduate or special students in the academic year 1949-50 to 874 during 1956-57 (excluding foreign students). Also more States and Territories are providing training opportunities. In 1957 there were 47 States sponsoring public health training as against 40 States in 1954; and in 1957, 75 percent of the trainees were sponsored by 16 States,

Number of persons receiving full-time accredited sponsored training of 4 months or more, fiscal years 1947-57.



as against only 8 States as chief sponsors in 1954.

These indications of progress are indeed welcome. But at this stage of cumulative needs and shortages, it is clear that some assistance over and above increased health grant funds is necessary if we are to avoid a serious lag in meeting total public health needs for a growing population and economy. New people must be drawn into the field not only to augment current staffs and programs, but also to provide a reserve from which replacements can be drawn. For example, an estimate, based on the 10-State sample survey, indicates that some 450 trained professional employees were lost to health departments in 1956 for such reasons as resignation, death, and transfer to jobs outside of official health agencies. In 1955 the loss was 546 workers. Thus, the group of 401 State-sponsored trainees in 1957 will not provide sufficient replacements for even normal attrition in health departments.

New Forces Toward Solution

Leaders in the field saw the situation as increasingly wasteful of valuable knowledge, gained in large part through the basic research activities long and strongly supported by the

Federal Government. Potentially effective public health planning, based on the newer developments in the health sciences, lay dormant instead of being applied to the never-ending fight against disease, disability, and death. Within Congress there was serious concern and desire for immediate action, plus recognition of the fact that understaffed health departments and agencies needed assistance in meeting the problem.

The Health Amendments Act of 1956 became law (P. L. 911, 84th Cong.) on August 2, 1956. Under title I of this act, Congress authorized the Public Health Service to establish a program to provide graduate or specialized public health training for health personnel in a variety of professional fields, and appropriated \$1 million for the first year's operation.

The bill was also specifically concerned with stimulating advanced training for professional nurses (title II) and with expanding and improving vocational training programs for practical nurses (title III). Each of these two programs received \$2 million for fiscal year 1957.

We are concerned here with title I of the Health Amendments Act. The basic purpose of this section is to alleviate the serious lack of

trained personnel in State and local health departments through a traineeship program which will bring into the field new people adequately prepared in all the needed disciplines. It is designed to supplement, and not to replace, the training activities currently sponsored by State and local governments. This aim promises a measure of relief to the health director long harassed by vacant positions and with consequent doubling-up of duties and responsibilities to the point where the release of even one staff member for full-time academic training makes worse an already bad situation. He is in the position of having to postpone the very measures that would improve staff efficiency and thereby relieve the burdens of understaffing.

In order to encourage new people to enter upon careers in the field of public health, this program seeks trainees among qualified individuals with less than 2 years' experience in public health work and less than 1 year of graduate or specialized public health training. Moreover, special attention is given to age (by a preference for candidates under 35), to the candidate's plan for using the training, and to his plans for future employment. Certain other aspects are also given consideration, such

as geographic distribution of candidates and the degree of shortages in the professional categories.

The traineeships are generally to be awarded for a period not to exceed 12 months. They are open to physicians, nurses, sanitary engineers, sanitarians, health educators, laboratory personnel, veterinarians, dentists, statisticians, nonmedical administrators, and other professional personnel whose skills are required in modern public health practice. In short, opportunities are offered to men and women who have completed their basic professional education to receive postgraduate training in public health. The traineeship awards are offered to them either directly by the Public Health Service or through grants to schools of public health and to colleges and universities offering public health nursing.

At the end of this program's first fiscal year of operation, 364 persons had been awarded traineeships for public health training to begin during the 1956-57 academic year, and the entire fiscal appropriation of \$1 million had been used.

Remarkable success has been achieved in a short time toward fulfilling the objectives of the traineeship program as to age and status of

Number of individuals awarded public health traineeships under title I of the Health Amendments Act of 1956 according to professional category, as of June 30, 1957

Professional category	Number of trainees	Age			Years of previous public health training		Years of previous public health experience			
		Under 35	35-45	Over 45	Less than one	One or more	0	0-2	Over 2 through 5	Over 5
Physicians.....	21	13	7	1	21	0	10	4	7	0
Nurses.....	199	161	36	2	199	0	101	66	21	11
Sanitary engineers.....	27	25	2	0	25	2	12	6	3	6
Sanitarians.....	25	20	5	0	24	1	3	5	12	5
Laboratory personnel (bacteriology, immunology, chemistry, etc.).....	13	13	0	0	10	3	4	6	2	1
Statisticians.....	2	2	0	0	2	0	0	0	1	1
Health educators.....	36	23	13	0	35	1	20	6	7	3
Nutritionists.....	6	6	0	0	6	0	5	1	0	0
Medical social workers.....	1	0	1	0	1	0	0	0	1	0
Dentists.....	10	4	6	0	10	0	4	4	1	1
Dental hygienists.....	8	6	2	0	8	0	4	1	3	0
Veterinarians.....	9	5	4	0	9	0	4	1	3	1
Nonmedical administrators.....	7	5	2	0	7	0	5	1	1	0
Total.....	364	283	78	3	357	7	172	101	62	29

trainees, and distribution among professional categories and among suitable academic institutions (see table). Of the 364 individuals given traineeships through June 1957, more than three-fourths were under the age of 35. Most of the remainder were between 35 and 45 years. Only three persons were over the age of 45.

Somewhat fewer than half of the total receiving traineeships, 172 persons, had had no previous experience in the field of public health. Of the remaining 192 trainees, 101 had had 2 years' or less experience in public health; 62 had been in such work for from more than 2 years through 5 years; and only 29 had been in the field for more than 5 years.

Awards were made to representatives in 13 different professional categories. The academic institutions where the trainees studied included 11 schools of public health; 32 colleges and universities offering public health nursing (with recognized programs allowing a major in public health nursing); and 19 other institutions, including 14 engineering schools.

In December 1956 a national advisory committee appointed by the Surgeon General to assist the Service in planning the 1957-58 operation of the traineeship program met in Washington and reviewed the standards and methods used for the previous year. The committee discussed the merits of broadening the traineeship range in the future to include teachers and research personnel, and of supporting 1 individual for 2 years of training. It also made plans for a national evaluation confer-

ence in 1958, which Congress directed as part of the legislation.

In summary, the new program of Public Health Service traineeships in its first year of operation added 364 trainees to the 401 receiving full-time accredited State-sponsored training—a combined total of 765 trained public health workers for potential employment in health departments and agencies. This total group provides a definite upswing to the prolonged decline in such activities. This is a good beginning, even though we realize that training must be provided for an even larger number of current and potential health department employees in the coming years, if we are to enlarge health and personnel resources adequately.

In accordance with the President's request, Congress doubled the appropriation for the traineeship program for fiscal year 1958, providing \$2 million for the coming year. With this support, we can expect to see soon some concrete results in terms of increased availability of trained personnel for State and local health departments. It is expected that in the second year of operation, public health traineeship grants will be made to 11 schools of public health and approximately 44 universities and colleges nationally recognized as preparing registered nurses for beginning positions in public health nursing.

On the basis of the 1956-57 accomplishments, this program can be viewed as a definite impetus to the solution of the large and continuing problem of keeping personnel skills at a high level by constant training.